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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

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FOREST INSECT SURVEY - ELDORADO NATIONAL FOREST

SEASON OF 1945

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Forest Insect Laboratory
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U. S. DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
FOREST INSECT INVESTIGATIONS

FOREST INSECT SURVEY - ELDORADO NATIONAL FOREST

SEASON OF 1945

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November 21, 1945

FOREST INSECT SURVEY - ELDORADO NATIONAL FOREST

SEASON of 1945

GENERAL CONDITIONS DURING THE SEASON OF 1945.

A general reconnaissance of the Forest during the 1945 season indicated that for the most part insect losses continued at a low level over most of the Forest and showed no change in trend over 1944. On certain local areas sharply rising infestation was noted. Losses in ponderosa pine and Jeffrey pine at the higher elevational zones were as low or even less than in 1944, but in the pine belt between 3,000 and 4,500 foot elevations, the western pine beetle infestation has developed specific hot spots which threaten to become epidemic. The more important centers are the American River Canyon between Pacific and Kyburz, the Whaler Creek-Slate Mountain tract, and a zone along the western boundaries of the Clear Creek and Amador working circles.

The Ips outbreaks whith were in evidence late last fall and which seemed to have touched off the increasing western pine beetle infestations noted this season were largely absent in the 1945 composition. The momentum of the attacks on living trees during the summer of 1945 was carried almost entirely by the western pine beetle.

Sugar pine losses caused by the mountain pine beetle have remained fairly static and only in a few very local areas is there any apparent increase over 1944. Mountain pine beetle in lodgepole pine has increased slightly in the Lake Valley and Echo Lakes areas, but has not developed any large epidemic centers.

Renewal of control work is recommended for the Whaler Creek-Slate Mountain area, provided it can be handled at a moderate cost through salvage supplemented by direct control. Continuation of maintenance control in the American River Canyon is recommended as well as a small amount of direct control on highly used recreational areas around Lake Tahoe and Echo Lake.

BARK BEETLE INFESTATION CONDITIONS FOUND IN COMMERCIAL PINE AREAS.

In the 1944 survey report conditions in the commercial pine stands were discussed according to the established management working circles. The same breakdown by working circles is continued in this 1945 report. Table 1 presents the loss estimates with explanatory notes. The areas where increasing infestations were found are outlined in red on Map 1.

Table 1. Annual Loss in Commercial Pine Areas - Eldorado National Forest - Seasons of 1944-1945

Area Working Circle	Date of 1945 Exam.	Est. rate of loss-pine type Year		Trees per sec.	Bd.ft. per acre	Comments
Long Canyon Block	August 17	1944	N½	14	85	High rate of loss noted north of Long Canyon in 1944 was apparently due to a concentration of 1944 summer trees on roadstrip from Brushy Springs to Southfork of Long Canyon. In August 1945 this situation had apparently cleared up and losses were below normal.
			S½	2	10	
		1945		4	15	
Georgetown	August 17 September 13	1944		6	10	1945 loss concentrated on eastern border in the Whaler Creek and Slate Mountain area. Losses in western and northern part of working circle no greater than in 1944.
		1945		12	20	
Silver Creek	Sept. 13	1944	"A"	7	15	In virgin timber of Area "A" (western part of working circle) the 1945 summer infestation shows aggressive tendencies. Control work is advisable. No increase of losses over 1944 in Area "B" (ponderosa-sugar pine stands, eastern half of working circle).
			"B"	5	18	
		1945	"A"	21	45	
			"B"	5	18	
Big Bend	Sept. 12	1944		7	16	1945 loss figures apply mainly to the American River Canyon slopes between Brush Creek and Kyburz. In other parts of working circle loss does not average over 5 trees per section.
		1945		15	20	
Alder Creek-Silver Fork	Not examined 1945	1944		5	18	Most of this area is in higher elevation type in which no serious losses were observed elsewhere in the Forest this season.
		-		-	-	
Caldor	Sept. 14	1944		6*	10	*Baltic, Northfork Blocks.
				5**	15	**Cat Creek, Pibi Blocks.
		1945		6*	12	Steeley Creek area where control was carried out in spring of 1944 shows great improvement. The loss estimate for 1945 obtained from Baltic and Armstrong Hill Lookouts shows slight increase over 1944.
				5**	15	
Clear Creek	Sept. 15	1944		5	14	1945 summer infestation in groups west of Forest boundary; aggressive increase noted in Southfork of Consumnes drainage.
		1945		30	25	
Amador	Sept. 15-16	1944		4	12	*Average for area.
		1945		7*	15*	**Lower Tiger Creek and Panther Creek drainages, mostly outside National Forest.
				30**	45**	Western pine beetle infestation in and around logging areas T.7N., R.14E approaching epidemic status. East of Beaver ridge (Bear River drainage) infestation is endemic in ponderosa, sugar and Jeffrey pines.

Upper Truckee. Only four Jeffrey pines of the 1944 winter brood were counted in 8.5 miles of roadstrip through this area. The total 1945 attack will probably not exceed ten trees on the entire area. Control is not necessary.

Echo Lakes. A group of three lodgepole pine were attacked at Echo Chalet in the late summer of 1944. In September 1945 five newly attacked trees were found on the same site. This is the first record of mountain pine beetle in the Echo Lakes area during the past ten years. The nearest center of recent infestation from which the beetles might have come was spotted in Osgood swamp in the Lake Valley area. This was a small group infestation about 1½ miles distant from Echo Chalet and considerably lower in elevation.

Control work is recommended to prevent further build up of the infestation in the special use areas. Not only lodgepole pine but western white pine is threatened.

Strawberry and Phillips. No current losses of any consequence were found in either of these areas bordering the highway in the American River Canyon.

RECOMMENDATIONS.

Bark beetle conditions are generally favorable throughout the Forest except for relatively small specific areas where control is recommended. These recommendations are:

1. A combined salvage and direct control project on about 7,000 acres in the Slate Mountain-Whaler Creek area. Preliminary estimates are that this will require treatment of about 225 trees before May 1, 1946, and that a considerable percent of this overwintering infestation can be disposed of through salvage. This is recommended as an administrative project to be handled by the Forest Supervisor under a cooperative agreement with the private timber owners in the area.

2. Continued maintenance control in the American River Canyon in T.11N., R.13E. using CPS labor if available. This is a follow up of the control program that was initiated and carried out in March and April 1945.

3. Treatment of infested sugar pines and Jeffrey pines in the Bliss Memorial State Park and other lands in the vicinity of Emerald Bay. It is estimated that between 10 and 20 trees should be treated by June 1, 1946. Although nearly all of this infestation is on State and private lands, an arrangement whereby the Forest Service can take over and supervise the work on the various ownerships would expedite the project.

4. Treatment of all infested lodgepole pines in the Echo Lakes area by June 1, 1946. One group of 7 trees which was treated in late October by the Forest Service may have included all of the recent infestation in the area, but a close check should be made for other trees attacked in 1945 which did not fade this year.

CONDITIONS IN RECREATIONAL AND SPECIAL USE AREAS.

The areas discussed below are outlined on Map 2; recommended control areas are shown in red.

Meeks Bay. Conditions in the intensively used tracts along the Lake were found to require no special control action. The only loss noted in 6 miles of road counts consisted of 2 Jeffrey pine and 2 white fir trees.

McKinney Creek area. An investigation was made August 16 of reported dying of lodgepole pine along McKinney Creek. About 1 mile west of lake shore the stand along the stream sites contains a considerable amount of old kill. About 2 to 3 miles up the creek this old loss is very heavy running up to 50 to 75 percent of the trees. Apparently this all was the result of a mountain pine beetle epidemic which was active about ten years ago and coincided with the epidemic in Lake Valley from 1929-1935. The McKinney Creek infestation may have been overlooked because it was off the main line of travel. The present situation is endemic with no recent killing of any importance.

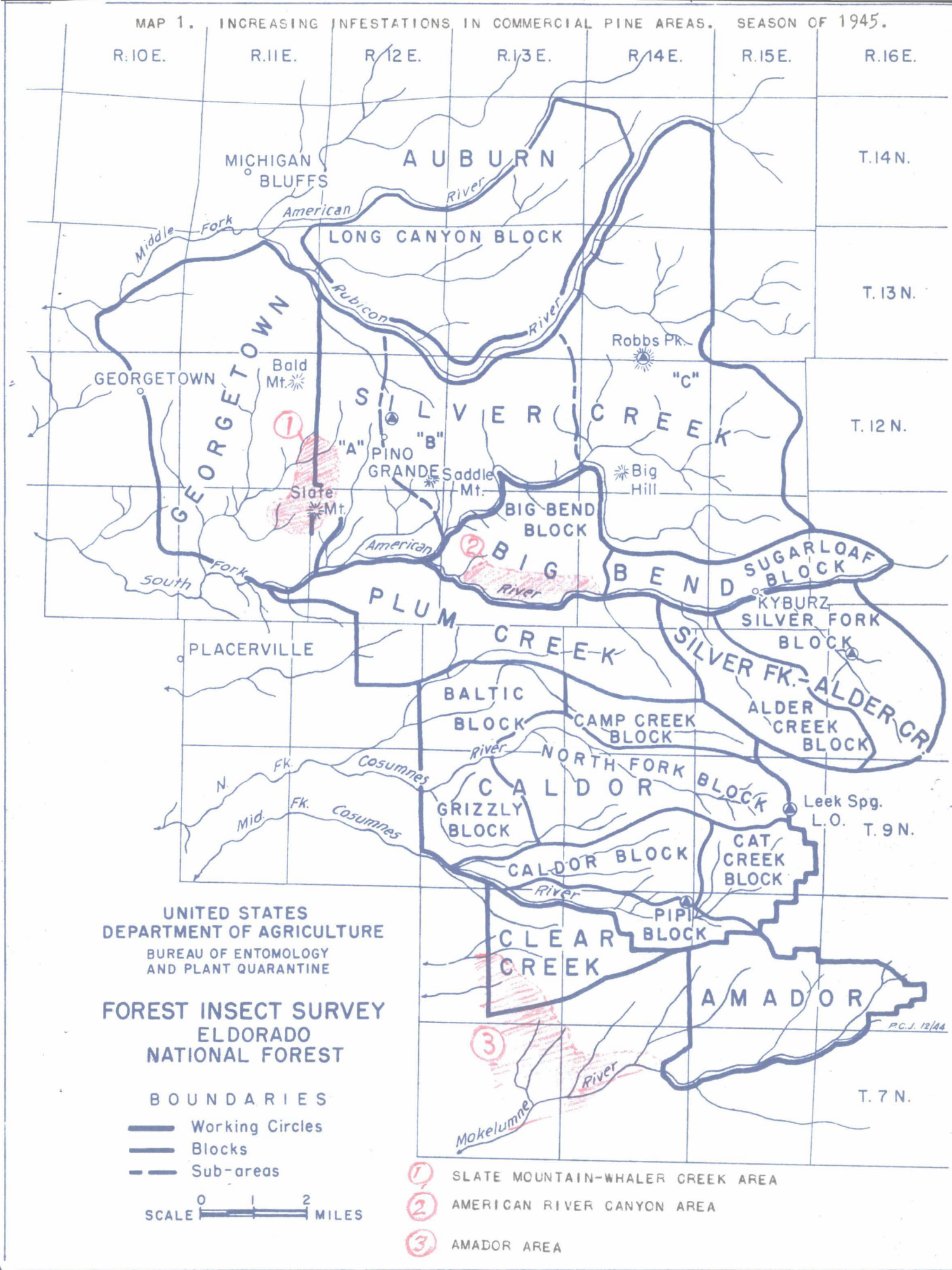
Emerald Bay. In the survey of 1944 an increase of mountain pine beetle in sugar pine was noted around Emerald Bay and the Rubicon State Park. This trend was found to be continuing in 1945. On a roadstrip of 3.4 miles through the State Park area, 5 sugar pines ranging from 12 to 60 inches DBH were located which had been killed since the summer of 1944. This is all low quality site for sugar pine and the infestation can be expected to continue. The Jeffrey pine beetle infestation is endemic. Control is recommended in the sugar pine stands. No other areas were noted requiring control action.

Lake Valley. The 1944 winter infestation in Jeffrey pine was very light and widely scattered with an average of only 2 or 3 trees per square mile. The trees attacked in 1945 were not in evidence at the time of the survey, but there is no indication that the attack will be any more than in 1944. Some maintenance control is desirable if the infested trees are located where they can be utilized.

The mountain pine beetle in lodgepole pine has been endemic for a number of years, but there was some increase in the attacks of 1944. On the meadow sites west of Myers Station four small groups were counted. One of these was examined on August 16 and the following attacks found within an area of less than one acre:

Trees killed in 1943	11
Trees killed in 1944	7
Trees killed in 1945	3 (seasonal attack incomplete)

This lodgepole infestation does not appear to be very aggressive and since it exists only on pasture lands it is of no immediate threat to special use tracts. Control may not be necessary.


MAP 1. INCREASING INFESTATIONS IN COMMERCIAL PINE AREAS. SEASON OF 1945.
R.10E.
R.11E.
R.12E.
R.13E.
R.14E.
R.15E.
R.16E.
T.14N.
T.13N.
T.12N.
T.9N.
T.7N.
MICHIGAN BLUFFS
AUBURN
American River
Middle Fork
LONG CANYON BLOCK
Rubicon River
GEORGETOWN
Bald Mt.
GEORGETOWN
SILVER CREEK
"A"
"B"
"C"
PINO GRANDE
Saddle Mt.
Robbs Pk.
Big Hill
Slate Mt.
BIG BEND BLOCK
BIG BEND
SUGARLOAF BLOCK
KYBURZ
SILVER FORK BLOCK
South Fork American River
PLUM CREEK
PLACERVILLE
SILVER FK.-ALDER CR.
BALTIC BLOCK
CAMP CREEK BLOCK
ALDER CREEK BLOCK
NORTH FORK BLOCK
N. Fk. Cosumnes River
Mid. Fk. Cosumnes River
CALDOR
GRIZZLY BLOCK
Leek Spg. L.O.
CALDOR BLOCK
CAT CREEK BLOCK
PIPI BLOCK
CLEAR CREEK
AMADOR
Mokelumne River
P.C.J. 12/44
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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
FOREST INSECT SURVEY
ELDORADO NATIONAL FOREST
BOUNDARIES
Working Circles
Blocks
Sub-areas
SCALE 0 1 2 MILES
1 SLATE MOUNTAIN-WHALER CREEK AREA
2 AMERICAN RIVER CANYON AREA
3 AMADOR AREA


R. 16 E.
R. 17 E.
R. 18 E.
MAP 2. RECOMMENDED CONTROL AREAS IN RECREATIONAL TRACTS. SEASON OF 1945
GLENBROOK
T. 14 N.
T. 13 N.
T. 12 N.
T. 11 N.
4 EMERALD BAY
5 ECHO LAKES
LAKE TAHOE
Sugar Pine Pt.
MEEKS BAY
McKinney Cr.
Miller L.
McKinney L.
General Cr.
Meeks Cr.
Cave Rock
Zephyr Pt.
Rubicon Pt.
Crag L.
Hidden L.
Rubicon Pk.
Stony Ridge L.
EMERALD BAY
NEVADA
CALIFORNIA
Round Mound
Desolation Valley
Phipps Pk.
Emerald Bay
EDGEWOOD
Camper Flat
Velma Lakes
Cascade L.
TALLAC
BIJOU
AL TAHOE
Heavenly Valley
Tahoe Mtn.
Fallen Leaf L.
LAKE VALLEY
Angora Pk.
Twin Pks.
Cold Cr.
High Mdws.
ECHO LAKES
Angora Lakes
Echo Pk.
Meyers R.S.
Trout Cr.
E Fk. Trout Cr.
FOUNTAIN PLACE
Flagpole Pk.
Echo L.
Truckee River
PHILLIPS
STRAWBERRY
Phillips Cr.
UPPER TRUCKEE
Pyramid R.S.
American River
Lovers Leap
STRAWBERRY
Bryan Cr.
Sayles Can.
Grass L.
Luther Pass
Big Meadow
Waterhouse Peak
UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
FOREST INSECT SURVEY
LAKE TAHOE AREA
ELDORADO COUNTY, CALIFORNIA
LEGEND
Reporting area boundary.
Entomological unit boundaries
SCALE 0 1 2 MILES
PCJ. 12-44